



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,038	03/03/2004	Melissa K. Rath	ATMI-668	4823
24239	7590	10/19/2007		
MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			EXAMINER LE, HOA VAN	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 10/19/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/792,038	Applicant(s) RATH ET AL.	
	Examiner Hoa V. Le	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9,10,14,15,17-21,24-31,33-36,39,43-50 and 53-59 is/are pending in the application.
- 4a) Of the above claim(s) 24-31,33-36,39,43-50,58 and 59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9,10,17-21 and 53-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1,2,4-7,9,10,14,15,17-21,24-31,33-36,39,43-50 and 53-59 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

This is in response to Paper filed on 09 October 2007.

I. The record shows that applicants elect specie of Formula G. It is that:

(1) Upon the allowance of a generic claim (especially, the instant claim 1 is read on the elected Formula G specie) ", applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

(2) An application of one (claim 1) or more claims over an applied prior art is not depended on a claim is depended on claim 1. But the applied prior art is sufficient to rejected claim 1 as required and may be one or more of the claims that are depended on claim 1. Applicants should urge, show and state on and for the record that that one or more claims are sufficiently and/or perfectly objected and/or rejected as that of claim 1 using the same applied issue or prior art.

(3) The elected Formula G with "0.10" of the mixture "oxirane" (being known in the art as ethylene oxide gas form), "methyl-, polymer with oxirane and mono(octylphenyl)ether" as claimed has been considered and searched but has not been found.

II. The amendment filed 13 March 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Art Unit: 1795

The broad language “oxirane species” finds no support and raises the issue of new matter.

For the issue of new mater, please see Tronzo v. Biomet Inc., 4 USPQ2d 1403.

Applicant is required to cancel the new matter in the reply to this Office Action.

III. Claims 1, 2, 4-7, 9-10, 14-15, 17-21 and 53-57 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The broad language “oxirane species” finds no support and raises the issue of new matter.

Applicants should made the same correction of claims 24-31, 33-36, 39, 43-50 and 58-59 for a later possible rejoinder.

Art Unit: 1795

IV. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4-7, 9-10, 14-15, 17-21 and 53-57 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 9-17, 21-22 and 33-48 as amended on 17 August 2007 of copending Application No. 10/389,214 (and its teachings and suggestions in the specification on at least paragraphs 9, 12, 13, 17, 18, 21, 23, Examples 2, 4 and 5). Applicants, assignee and their counsel may and should disagree, urge and state on and for the record that each of the claims as originally filed is self

Art Unit: 1795

sufficient. There has not been and will not be relied on any embodiment and any application for any purpose) considered in view of En et al (2004/0134682).

Applicants in the application do not specify an alkali base. However, it is known in the art at the time the invention was made to obtain and use an alkali base for the advantage of providing a sufficient alkalinity and stripping power. Evidence can be seen in at least En et al at paragraph 0550, 0600, 0612, 0620, 0653, 0714, 0754 and 0774.

The ability or capability of “removing...” or the like is a property of a material and considers inherent. For a patentability of a property of a material embodiment, it is allowed by law to request and require applicants to convincingly show or provide an evidence to the contrary since arguments alone are not a factual evidence in accordance with the authority stated in In re Schreiber, 44 USPQ2d 1429. An allowed claim or patent would have no value when someone later arrives to the same or obviously the same claimed functional property as set forth on the record using all possible combinations of the teachings and suggestions in the applied reference. A showing should be submitted in the next response to this Office action in order for it to be considered timely.

Since the above references are all related to cleaners and/or removers, it would have been obvious to one having ordinary skill in the art at the time the

Art Unit: 1795

invention was made to use or cite potassium hydroxide alkaline agent for a reasonable expectation of sufficiently providing an additional alkalinity and stripping power to one having ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants should make the same statement for claims 24-31, 33-36, 39, 43-50 and 58-59 for a later possible rejoinder.

V. Claims 1-2, 5, 10, 14-15, 17, 19-21, 53 and 56 with respect to the application of the sub-species are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hsu (2005/0176603).

Hsu discloses and teaches a cleaner for cleaning and/or removing photoresist film. The cleaner comprises a quaternary base, potassium hydroxide, water, water-soluble solvent and (2-mercaptobenzothiazole and 2-mercaptobenzimidazole as amended with (mercaptobenzothiazole, 2-mercaptobenzothiazole and 2-(mercaptobenzoimidazole (Applicants should check its spelling before an allowance is indicated))). Please see the whole disclosure of the applied reference, especially at paragraphs 0012 to 0027. The embodiment of the ability or capability of “removing...” or the like is a property of a material and considers inherent. For

Art Unit: 1795

a patentability of a property of a material embodiment, it is allowed by law to request and require applicants to convincingly show or provide an evidence to the contrary since arguments alone are not a factual evidence in accordance with the authority stated in *In re Schreiber*, 44 USPQ2d 1429. An allowed claim or patent would have no value when someone shows to the same or obviously the same functionally claimed property as set forth on the record using all possible combinations of the teachings and suggestions in the applied reference. Since Hsu is reasonably disclosed and taught the claimed embodiments, the above claims are found to be anticipated by Hsu.

In an alternative, the remote teachings and/or suggestions would be sufficient to found the claims to be rendered prima-facie obvious by Hsu.

Applicant's arguments filed 10 September 2007 have been fully considered but they are not persuasive.

The submission evidences under Rule 131 filed on 10 September 2007 have been fully considered but are insufficient to cover each of all embodiments as applied in Hsu, at least the applied "2-mercaptobenzothiazole and 2-mercaptobenzimidazole".

VI. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5, 10, 14-15, 17, 19-21, 53 and 56 with respect to the application of the sub-species are rejected under 35 U.S.C. 103(a) as obvious over Ichiki (2001/0021488) considered in view of En et al (2004/0134682) and Hsu (2005/0176603).

Ichiki discloses, teaches and suggests a cleaner for cleaning and/or removing photoresist film. The cleaner comprises a quaternary base, water, water-soluble solvent. Please see the whole disclosure of the applied reference, especially at paragraphs 0027 to 0035 and 0039. The embodiment of the ability or capability of "removing..." or the like is a property of a material and considers inherent. For a patentability of a property of a material embodiment, it is allowed by law to request and require applicants to convincingly show or provide an evidence to the contrary since arguments alone are not a factual evidence in accordance with the authority stated in *In re Schreiber*, 44 USPQ2d 1429. An allowed claim or patent would have no value when someone shows to the same or obviously the same

Art Unit: 1795

functionally claimed property as set forth on the record using all possible combinations of the teachings and suggestions in the applied reference.

Ichiki does not specify an addition potassium hydroxide alkaline agent. However, it is known in the art at the time the invention was made to use potassium hydroxide alkaline agent to provide an alkalinity and stripping power. Evidence can be seen in at least En et al at paragraph 0550, 0600, 0612, 0620, 0653, 0714, 0754 and 0774.

Ichiki does not cite the amended mercaptobenzothiazole, 2-mercaptobenzothiazole and 2-(mercaptobenzoimidazole (Applicants should check its spelling before an allowance is indicated))). However, it is known in the art at the time the invention was made to obtain and use (2-mercaptobenzothiazole and 2-mercaptobenzimidazole as stabilizers. Evidence can be see in Hsu at least paragraph 0017 for the advantage of obtaining a stable composition.

Since the above references are all related to cleaners and/or removers, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use or cite potassium hydroxide alkaline agent for a reasonable expectation of sufficiently providing an additional alkalinity and stripping power to one having ordinary skill in the art and 2-

Art Unit: 1795

mercaptobenzothiazole and/or 2-mercaptobenzimidazole for a reasonable expectation of obtaining a stable composition.

VII. Claims 1-2, 5, 10, 14-15, 17 and 53 with respect to the application of the sub-species are rejected under 35 U.S.C. 103(a) as obvious over Yokoi et al (2007/0003859) considered in view of En et al (2004/0134682) and Hsu (2005/0176603).

Yokoi et al disclose, teach and suggest a cleaner for removing photoresist film. The cleaner comprises a quaternary base and 1-mercapto-1-propanol and its 2-mercaptoethanol adjacent homologue as chelating agents or corrosion inhibitors. Please see the whole disclosure of the applied reference, especially at paragraphs 0011, 0025, 0027, 0028 and 0036. The embodiment of the ability or capability of "removing..." or the like is a property of a material and considers inherent. For a patentability of a property of a material embodiment, it is allowed by law to request and require applicants to convincingly show or provide an evidence to the contrary since arguments alone are not a factual evidence in accordance with the authority stated in *In re Schreiber*, 44 USPQ2d 1429. An allowed claim or patent would have no value when someone shows to the same or obviously the same

Art Unit: 1795

functionally claimed property as set forth on the record using all possible combinations of the teachings and suggestions in the applied reference.

Yokoi et al do not specify an addition potassium hydroxide alkaline agent. However, it is known in the art at the time the invention was made to use potassium hydroxide alkaline agent to provide an alkalinity and stripping power. Evidence can be seen in at least En et al at paragraph 0550, 0600, 0612, 0620, 0653, 0714, 0754 and 0774.

Yokoi et al do not the amended mercaptobenzothiazole, 2-mercaptobenzothiazole and 2-(mercaptobenzoimidazole (Applicants should check its spelling before an allowance is indicated))). However, it is known in the art at the time the invention was made to obtain and use (2-mercaptobenzothiazole and 2-mercaptobenzimidazole as stabilizers. Evidence can be see in Hsu at least paragraph 0017 for the advantage of obtaining a stable composition.

Since the above references are all related to cleaners and/or removers, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use or cite potassium hydroxide alkaline agent for a reasonable expectation of sufficiently providing an additional alkalinity and stripping power to one having ordinary skill in the art and 2-

Art Unit: 1795

mercaptobenzothiazole and/or 2-mercaptobenzimidazole for a reasonable expectation of obtaining a stable composition.

VIII. Chemical ingredients and their amounts of the elected Formula G in claim 7 have been considered and searched. The same are with its closely related claims 57 with respect to. the mixture "oxirane" (being known in the art as ethylene oxide gas form), "methyl-, polymer with oxirane and mono(octylphenyl)ether" as claimed being not found. In the absence of a pertinent reference again the elected Formula G and claim 57, no rejection is made. However, the elected Formula G and claim 57 are objected to but would be allowable if each of them is rewritten in an independent form.

IX. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332.

The examiner can normally be reached from 6:30 AM to 4:30 PM on Monday through Thursday and about the same time of most Friday.

Art Unit: 1795

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526.

Applicants may file a paper by (1) fax with a central facsimile receiving number 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa V. Le  
Primary Examiner  
Art Unit 1752

HVL  
17 October 2007

HOA VAN LE  
PRIMARY EXAMINER

*Hoa Van Le*